

Figure 1

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Figure 2C

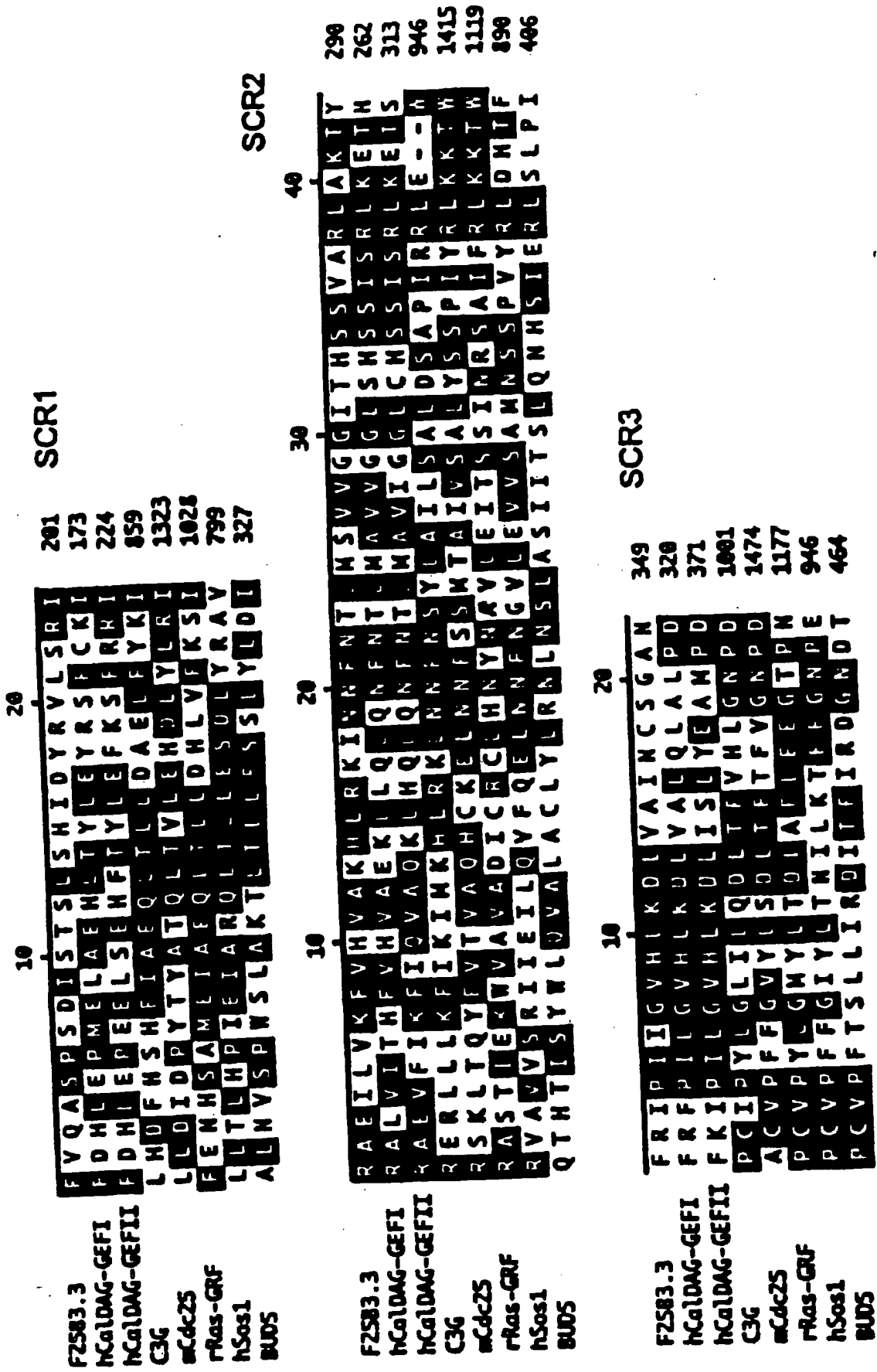


Figure 2A

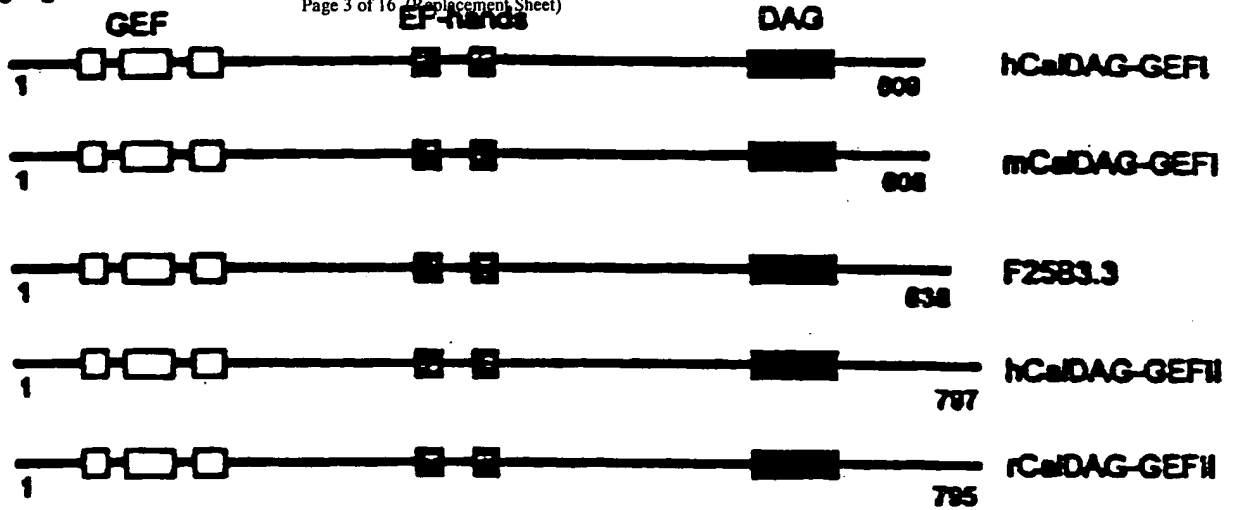


Figure 2B

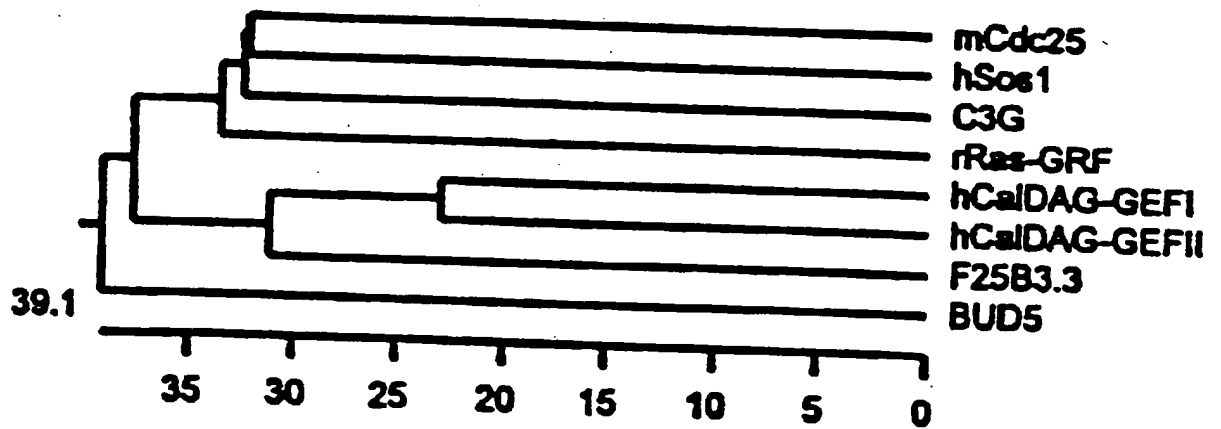


Figure 2D-1

hCaldag-GEFI	M	A	G	T	L	D	L	O	K	G	C	T	V	E	E	L	L	R	G	C	I	E	A	F	D	D	S	E	K	V	R	D	P	Q	L	V	R	M	F	L	M	H	M	P	M	I	P	S	S	
mCaldag-GEFI	M	A	G	T	L	D	L	O	K	G	C	T	V	E	E	L	L	R	G	C	I	E	A	F	D	D	S	E	K	V	R	D	P	Q	L	V	R	M	F	L	M	H	M	P	M	I	P	S	S	
hCaldag-GEFI	K	E	L	K	A	L	L	D	Q	E	G	N	R	R	N	S	S	L	I	D	I	S	V	P	T	Y	K	K	R	Q	V	T	Q	R	M	P	V	G	Q	K	K	K	M	S	L	L	F			
mCaldag-GEFI	K	E	L	K	A	L	L	D	Q	E	G	N	R	R	N	S	S	L	I	D	I	S	V	P	T	Y	K	K	R	Q	V	T	Q	R	M	P	V	G	Q	K	K	K	M	S	L	L	F			
hCaldag-GEFI	N	S	V	S	Q	V	Q	L	M	I	L	S	K	P	T	A	Q	R	A	L	V	I	T	N	F	V	M	V	A	E	K	L	L	Q	L	Q	N	F	N	T	L	M	A	V	V	G	L			
mCaldag-GEFI	N	S	V	S	Q	V	Q	L	M	I	L	S	K	P	T	A	Q	R	A	L	V	I	T	N	F	V	M	V	A	E	K	L	L	Q	L	Q	N	F	N	T	L	M	A	V	V	G	L			
hCaldag-GEFI	F	P	I	L	G	V	N	L	K	D	L	V	A	L	Q	L	A	L	P	D	N	L	D	P	A	R	T	R	L	N	G	A	K	N	K	Q	L	F	S	I	L	E	E	L	A	M	V	T	S	L
mCaldag-GEFI	F	P	I	L	G	V	N	L	K	D	L	V	A	L	Q	L	A	L	P	D	N	L	D	P	A	R	T	R	L	N	G	A	K	N	K	Q	L	F	S	I	L	E	E	L	A	M	V	T	S	L
hCaldag-GEFI	P	P	R	P	P	V	L	E	E	N	T	S	A	A	K	P	K	L	D	Q	A	L	V	V	E	N	I	E	K	M	V	E	S	V	F	R	N	F	D	V	D	G	D	G	N	I	S	Q	E	E
mCaldag-GEFI	P	P	R	P	P	V	L	E	E	N	T	S	A	A	K	P	K	L	D	Q	A	L	V	V	E	N	I	E	K	M	V	E	S	V	F	R	N	F	D	V	D	G	D	G	N	I	S	Q	E	E
hCaldag-GEFI	F	Q	E	S	N	S	L	R	P	V	A	C	R	N	C	K	A	L	I	L	G	I	Y	K	Q	G	L	K	C	R	A	C	G	V	N	C	N	K	Q	C	K	D	R	L	S	V	E	C	R	
mCaldag-GEFI	F	Q	E	S	N	S	L	R	P	V	A	C	R	N	C	K	A	L	I	L	G	I	Y	K	Q	G	L	K	C	R	A	C	G	V	N	C	N	K	Q	C	K	D	R	L	S	V	E	C	R	
hCaldag-GEFI	E	D	G	V	F	D	I	N	L																																									
mCaldag-GEFI	E	D	G	V	F	D	I	N	L																																									

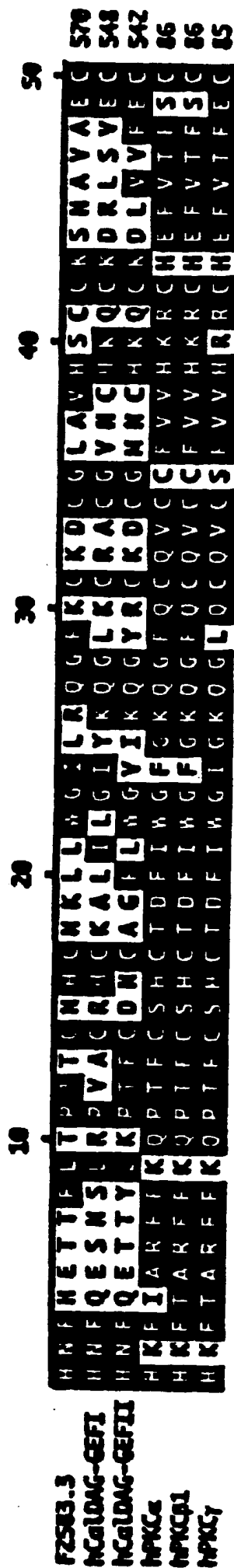
Q	L	A	A	K	L	L	N	I	Y	Q	Q	S	R	K	O	N	S	N	S	L	Q	V	K	T	C	N	L	V	R	Y	N	I	S	A	F	P	A	E	F	D	L	N	P	E	L	A	E	O	1
Q	L	A	S	K	L	L	N	E	Y	Q	Q	S	R	K	O	N	S	N	S	L	Q	V	K	T	C	N	L	V	R	Y	N	I	S	A	F	P	A	E	F	D	L	N	P	E	L	A	E	I	
D	N	L	E	P	M	E	L	A	E	N	L	T	Y	L	E	Y	R	S	F	C	K	I	L	F	Q	D	Y	N	S	F	V	T	M	G	C	T	V	D	M	P	V	L	E	R	F	I	S	L	F
D	N	L	E	P	M	E	L	A	E	N	L	T	Y	L	E	Y	R	S	F	C	K	I	L	F	Q	D	Y	N	S	F	V	T	M	G	C	T	V	D	M	P	V	L	E	R	F	I	S	L	F
S	N	S	I	S	R	L	K	E	T	M	S	N	S	P	E	T	I	K	L	N	E	G	L	T	E	L	V	T	A	T	G	M	Y	R	R	R	L	A	A	C	V	G	F	R					
S	N	S	I	S	R	L	K	E	T	M	S	N	S	P	E	T	I	K	L	N	E	G	L	T	E	L	V	T	A	T	G	M	Y	R	R	R	L	A	A	C	V	G	F	R					
R	P	P	V	Q	A	N	P	D	L	S	L	T	V	S	L	D	Q	Y	Q	T	E	D	E	L	Y	Q	L	S	L	Q	R	E	P	R	S	K	S	S	P	T	S	P	T	S	C	T	P		
R	P	P	V	Q	A	N	P	D	L	S	L	T	V	S	L	D	Q	Y	Q	T	E	D	E	L	Y	Q	L	S	L	Q	R	E	P	R	S	K	S	S	P	T	S	P	T	S	C	T	P		
F	Q	I	I	R	G	N	F	P	T	L	S	A	F	G	D	L	Q	N	Q	Q	C	I	S	R	E	E	N	V	S	F	L	R	S	S	V	L	G	R	M	G	F	V	N						
F	Q	I	I	R	G	N	F	P	T	L	S	A	F	G	D	L	Q	N	Q	Q	C	I	S	R	E	E	N	I	S	Y	F	L	R	S	S	V	L	G	R	M	G	F	V	N					
R	A	Q	S	V	S	L	E	G	S	A	P	S	P	S	P	M	N	S	M	N	R	A	F	S	F	S	L	P	R	P	C	R	R	S	R	P	P	E	I	R	E	E	E	V	Q	T	V		
R	A	Q	S	V	S	L	E	G	S	A	P	S	P	S	P	M	N	S	M	N	R	A	F	S	F	S	L	P	R	P	C	R	R	S	R	P	P	E	I	R	E	E	E	V	Q	T	V		

Figure 2 E

F2S3.3
 hCALDAG-GEFI
 hCALDAG-GEFI
 hCalmodulin
 hCalbindin D28K
 hCalneurin B
 hParvalbumin α
 hTropomyosin C

	10										20									
A	V	F	K	N	H	Y	D	H	D	R	D	G	F	L	S	V	L	F	Q	473
S	V	F	R	N	T	D	V	D	G	D	G	D	G	H	I	S	Q	E	F	452
S	V	F	K	N	Y	D	H	D	Q	D	G	D	G	Y	I	S	Q	E	F	447
E	A	I	S	L	F	D	K	D	G	D	G	D	G	T	L	T	T	K	L	34
L	M	L	K	L	F	D	S	N	H	D	G	D	G	K	L	E	L	T	E	163
F	A	F	R	I	Y	D	H	D	K	D	G	D	G	Y	I	S	N	G	E	113
K	V	F	H	M	L	D	K	D	K	S	C	F	I	E	E	D	E	L	Q	65
E	C	E	R	I	F	D	R	N	A	D	G	D	G	Y	I	D	P	E	E	117

Figure 2F



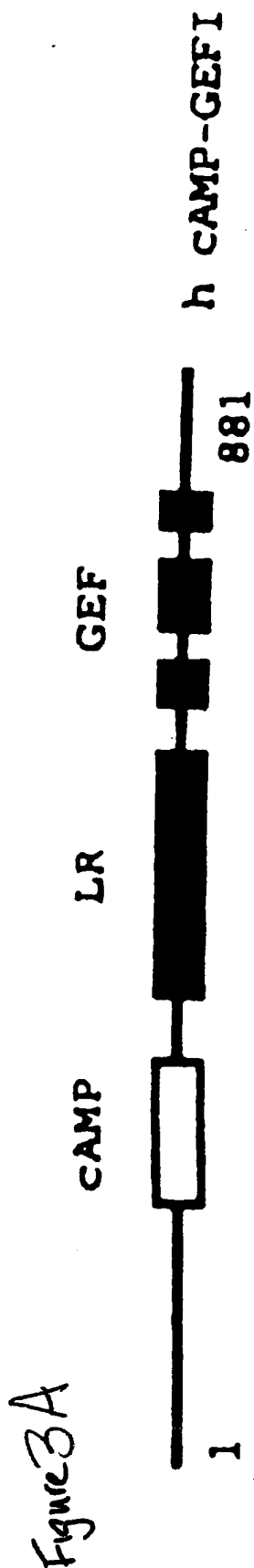


Figure
3B

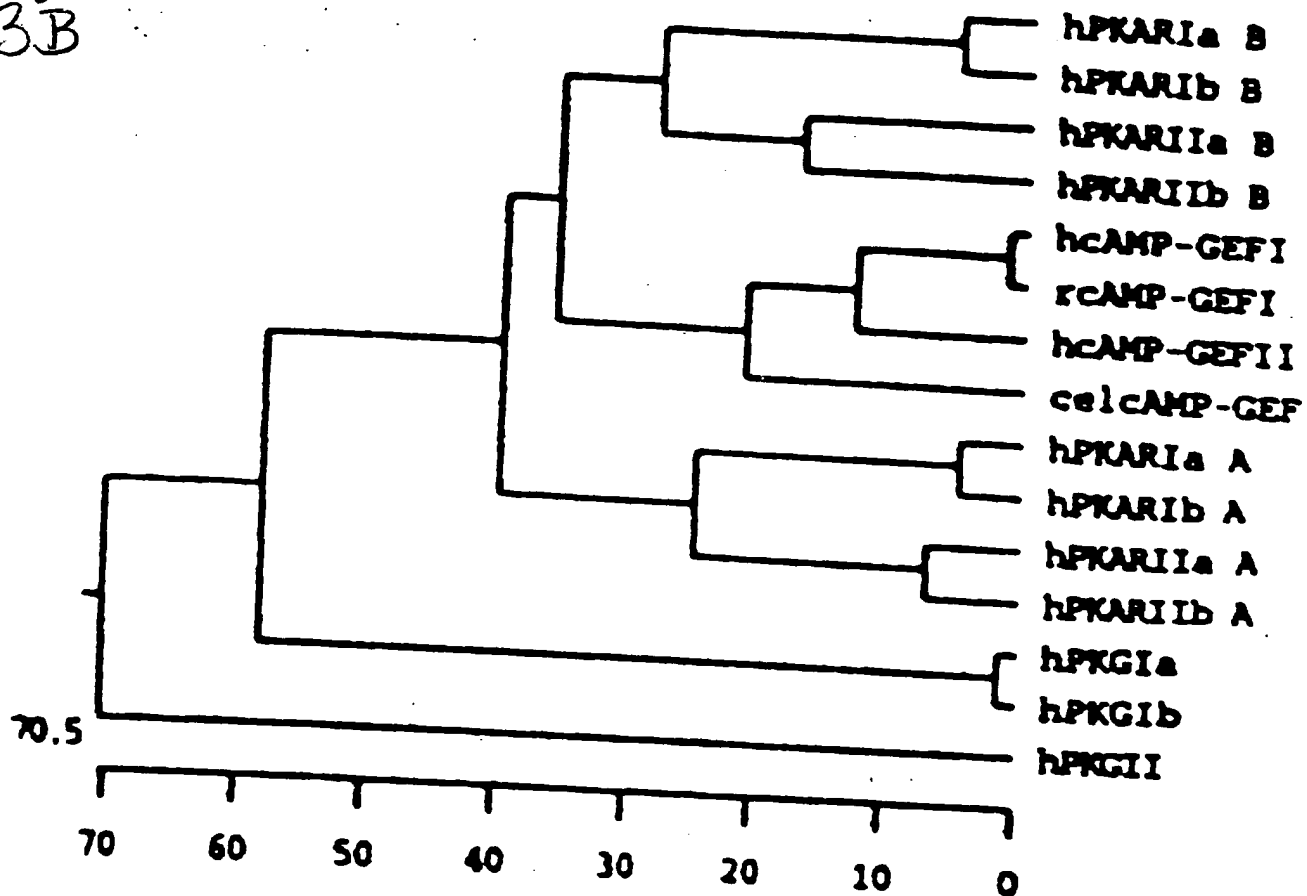


Figure 3C

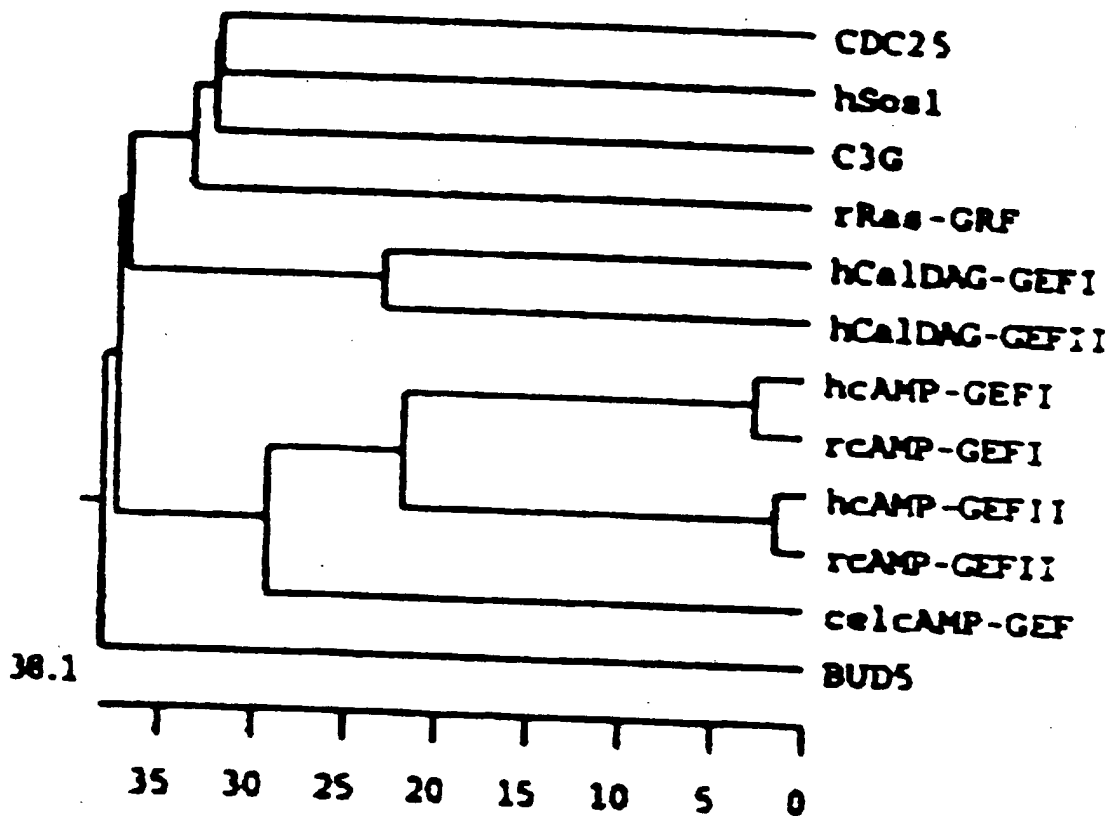


Figure
 3D-1

hCAMP-GEFI	L	D	L	V	S	A	K	D	L	A	G	L	D	E	D	W	L	F	N	S	I	639		
hCAMP-GEFI	L	D	L	V	S	A	K	D	L	A	G	L	D	E	D	W	L	F	N	S	I	642		
hCAMP-GEFI	F	E	L	M	S	S	K	D	L	A	G	L	D	E	D	W	L	F	N	C	V	791		
hCAMP-GEFI	F	E	L	M	S	S	K	D	L	A	G	L	D	E	D	W	L	F	N	C	V	216		
celcAMP-GEF	L	E	L	I	D	S	Q	E	L	A	E	L	L	T	T	L	Q	L	R	S	T	1010		
hCa12DAG-GEFI	F	D	E	L	E	P	M	E	L	A	E	L	L	T	T	L	E	R	C	K	I	173		
hCa12DAG-GEFI	F	D	E	L	E	P	M	E	L	A	E	L	L	T	T	L	E	R	C	K	I	224		
C3G	L	E	D	F	E	S	M	E	I	A	E	Q	L	T	T	L	E	L	F	Y	K	I	859	
CDC25	L	L	D	I	D	P	Y	T	I	A	T	Q	L	T	T	L	E	L	Y	L	R	I	1323	
hRas-GRF	F	E	E	E	S	A	M	E	I	A	E	Q	L	T	T	L	E	L	V	P	K	S	I	1028
hSos1	L	L	T	L	M	P	I	E	I	A	R	Q	L	T	T	L	E	L	Y	R	A	V	799	
BUD5	A	L	M	V	S	P	W	S	L	A	K	T	L	T	L	L	E	S	L	Y	L	D	I	327

[illegible]

hcAMP-GEFI
rcAMP-GEFI
hcAMP-GEFII
rcAMP-GEFII
celcAMP-GEF
hCaLDAG-GEFI
hCaLDAG-GEFII
C3G
CDC25
fRas-GRF
hSos1
BUDS

Figure 3D-2

Figure 3D-3

731	P	V	I	P	P	M	P	L	L	L	K	D	M	T	F	I	H	E	G	H	T	789
734	P	V	I	P	P	M	P	L	L	L	K	D	M	T	F	I	H	E	G	H	T	792
882	P	L	I	P	P	M	P	L	L	L	K	D	M	T	F	I	H	E	G	H	T	940
307	P	L	I	P	P	M	P	L	L	L	K	D	M	T	F	I	H	E	G	H	T	365
1101	P	Y	I	P	P	V	P	L	I	L	K	D	L	M	P	I	H	Q	G	N	K	1159
262	P	R	P	P	I	L	G	V	E	L	K	D	L	V	A	L	Q	L	A	L	P	320
313	P	K	I	P	I	L	G	V	E	L	K	D	L	I	S	L	Y	E	A	M	P	371
946	P	C	I	P	Y	L	G	L	I	L	Q	D	L	T	P	V	H	L	G	N	P	1001
1415	A	C	V	P	F	P	G	V	Y	L	S	D	L	T	F	T	V	G	N	P	P	1474
1119	P	C	V	P	Y	L	G	M	Y	L	T	D	L	A	F	L	E	E	C	T	P	1177
890	P	C	V	P	P	P	G	I	Y	L	T	M	I	L	K	T	E	E	G	N	P	946
406	P	C	V	P	P	T	S	L	L	I	R	D	I	T	F	I	R	D	C	N	D	464

Figure 3E-1

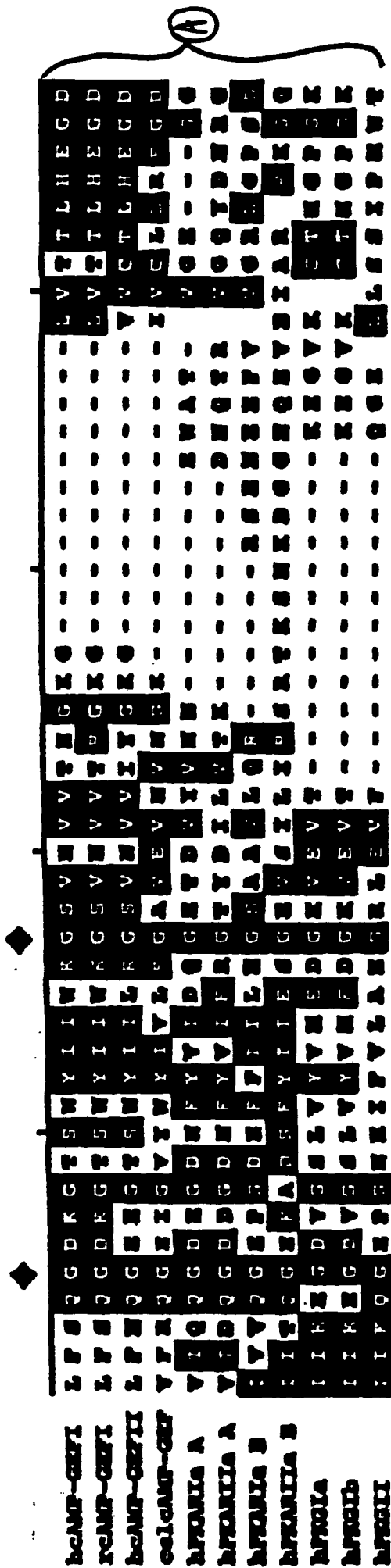


Figure 3E-2

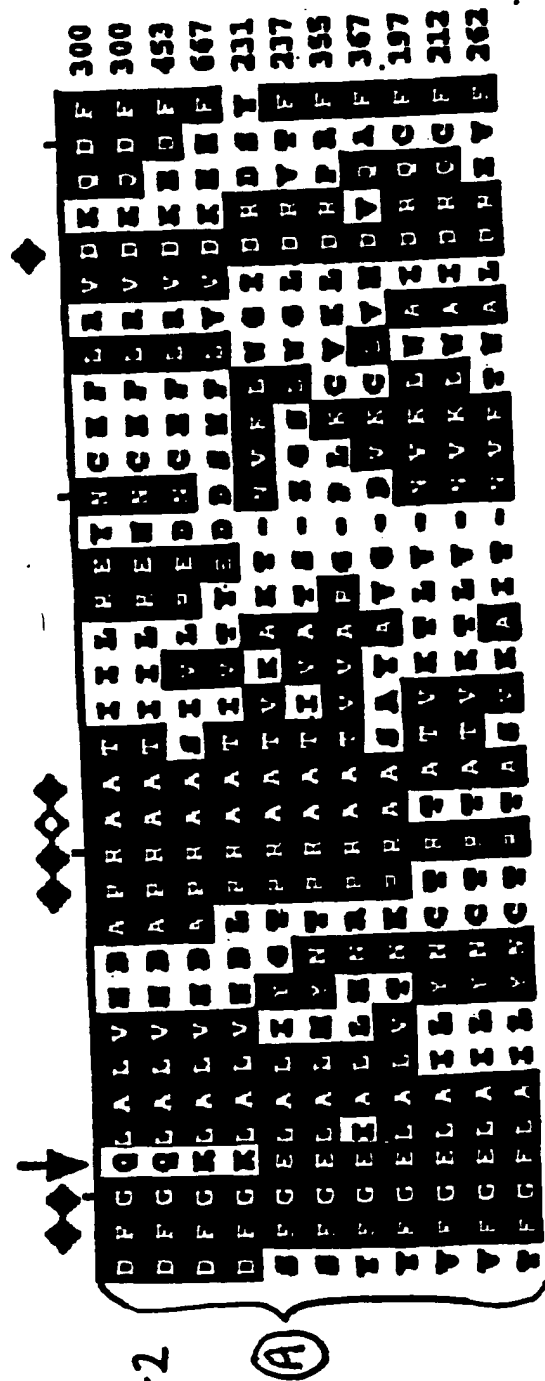


Figure 3 F-1

bcAMP-GEFI	NVL-----	ERMHRPRS-----
bcAMP-GEFII	NVAAHAANSSSSAEWIACLDER	RPLERSSESDVDIIFTR
bcAMP-GEFI	-----	HQNPS--CIQG-----
bcAMP-GEFII	YAVLAGSLDVKVSETSS	HQDAVTICTLGCIGTAFGRSI
bcAMP-GEFI	-----	TPLTNSSEESLDPSESLEQ
bcAMP-GEFII	PYGVNETGSHNDRIIDKENT	PLIEPHVPLRPANTITR
bcAMP-GEFI	LVDGILALGLGVNRS	QVVGICQVLLDEGALCHVKND
bcAMP-GEFII	LVDWNNQQTFCVNSRT	QAVGNWQVLLLEDGVLEHVDQR
bcAMP-GEFI	SQRGPDALLTVALRKPPGQRT	DEELDLIFRELLNIKA
bcAMP-GEFII	SQNGPDANNNMILRKPPGQRT	VDDLEIIFYRELLNIKA
bcAMP-GEFI	GSVHVVTGKGLVTTLNEGDDFG	QLALVNDAPRAATI
bcAMP-GEFII	GSVHVVIYGKGVVCTLNEGDDFG	KLALVNDAPRAASI
bcAMP-GEFI	ASQGA-GPSRPFTFGNNRYTVNSGTFD	KILELLLEAN
bcAMP-GEFII	VPAGNRASHNQNSQFQQR	YTVNSGTFSEKILEHFLETI
bcAMP-GEFI	GSSEQRSTYVCMKRQQILRLV	SQWVALYGSMLHTDP
bcAMP-GEFII	QGTETEKKNDYALNNKRRVIRLV	LQWAAANYGDLLOEDD
bcAMP-GEFI	SPQNKARNLPVWLPNQDE	PLFGSSCAIQVGDKVPYDI
bcAMP-GEFII	APQKKKHKVLLQQFNTGDER	-AQKRPPIRGSDDEVLPKY
bcAMP-GEFI	GDAIGLQPDARGVATSLGLNERLF	VVNPQEVNELIPH
bcAMP-GEFII	GEXVVLKPNDSVFTTLTINGR	LFACPREQFDSLTPL
bcAMP-GEFI	NYVLGPQHLRDVTTANLERF	NNRFNELQYMWATELCCL
bcAMP-GEFII	YNTFGRRNFKK-TTANLDLFL	RREFNEIQFMVVTEICL
bcAMP-GEFI	RLAHTWERLPHKVRKLYSALERL	LDPSENHNRVYRLAL
bcAMP-GEFII	RLALTWEKLPSEKFKFYAEPESL	NDPSRNHRAAYRLTV
bcAMP-GEFI	AARMNLNCRSHNPVFLSP	PLRSRVSHLNEDSQVARIST
bcAMP-GEFII	TARTVRYYSQ---	FPNF-----

Figure 3F-2

-----CSYQLLE----- 20
LKEVKAFKFPNLLNQICLCGYENLEKGITLFRQGDIGTNW 80

-----LR-----W----- 32
LDNTPRNATIVTRESSELLEIRIQKDFKALWEEKYROYNAGLLAP 160

ASTERVLRAGRQLNQHLATCFNLIIRDRKYNELRLYRQCCSGRE 92
VPSEKILRAGKILRNAILSRAPENIIRDRKYNELKTYRQCCVQTE 240

WAFQDRDAQFYRFPQPEPE--PVGTHEN-----EELAEAVALL 166
HNFQDK-YLFYRFLDDENEDAPLPTEKKKECDEELQDTHLL 319

VAHLSHSEVERRELAVALFEPHSEKACTVLFSSQGDKGTSWYIINK 246
LSHLSTTVRERELAGVLIPESEHAKGCTVLFNQGEKTSWYIILK 399

ILREYNCHFLRVDEKQDFNRIIKDVRAKTMRLLENKGVVLVLER 326
VLRDNCHFLRVDEKQDFNRIILRDVEANTVELKENDDQDVLVLEK 479

GLDSSANDPKETFLSDFLLTHERVFNPSAQLCAALLNHFHVEFA 405
RLKATLNEATDSVLNDFINNEHCYFNPNTOQLCPALVANTHAQPS 559

VATSFLLHKLSDLVGRDTRLSENLLRQWPERRRRCHRLNCGGNA 485
VSNAPLREFYVEVSDDARNIAALKRQLPELEKIVKQISE-DAK 638

CRPDHSLVLTTLQLPVTASVREVNAALAQEDGWTEKGQVLVKVNSA 565
YCHDHTYTTIRVPVATSVKEVISAVADKLGSGEGLIIVKNSSG 717

FDQLGPTVGSAEGLDLVSAKDLAGQLTDHDMSSLFNSIHQVELI 645
PEQEGPTVGTVGTFELNSSLKDLATQNTIYDWELEFCVHELELI 797

CPVPGPRAQLLKKFIKLAANLKEQKENVNSFFAVNFGLSNISPIS 725
CSQLSKRVQLLKKFIKIAANCKEYKNLNSFFAIVNGLSNIAVS 876

AKLSPPVIPPFPPLLKDNTPFIHEGNHTLVENLIINFEKNNRNIAR 805
AKLEPPLIPPFPPLLIKDNTPFHEGNKTFIDNLIINFEKNNRNIAN 956

CEQSLSTRSPASTWAYVQQLKVIDNQRELSRLSRELEP 881
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